ABSTRACT OF THE DISCLOSURE

According to the present invention there is provided a method for increasing data capacity in packet switched networks, by providing an improved queuing mechanism, incorporating both packet classification and FIFO methodologies into the queue management policy. This method thereby enables management of queues so as to best impact on perceived performance from the users perspective. A queue management system is provided for that comprises setting up of an advanced classifying module that considers the packet headers as well as considers the arrival time of packets and events or changes in the session, for their impact on the perceived performance of packets. The present invention also comprises the creation of a single physical queue that enables packets to be dynamically positioned and managed during open sessions. This queue therefore integrates the packet priority criterion, and other criteria such that packets in the queue are intelligently positioned.